



# **Attachment B**

## **Assumptions Used for San Juan Water District Consortium**

**March 2005**

## **ATTACHMENT B: ASSUMPTIONS USED FOR SAN JUAN WATER DISTRICT CONSORTIUM**

### **WATER RIGHTS AND CONTRACT ENTITLEMENTS**

The San Juan Water District Consortium includes Citrus Heights Water District (CHWD), Fair Oaks Water District (FOWD), Orange Vale Water Company (OVWC), San Juan Water District, and a portion of the City of Folsom. These districts and the relevant portion of the City of Folsom are hereinafter collectively referred to as the SJWD.

SJWD has a pre-1914 water right to 33,000 acre-feet (AF) per year, a contract with Bureau of Reclamation (Reclamation) for 11,200 AF per year from the Central Valley Project (CVP), and a contract with Placer County Water Agency (PCWA) for 25,000 AF per year. The place of use for the PCWA contract from the Middle Fork Project (MFP) was originally SJWD's service area within Placer County, but this was later amended to include SJWD's service area in Sacramento County on a supplemental basis. SJWD has also contracted with Reclamation for an additional 13,000 AF per year of American River water, as authorized by Public Law 101-514.

All SJWD surface water is diverted from Folsom Lake and treated at the Sidney N. Peterson Water Treatment Plant. CHWD, FOWD, and OVWC supplement their surface water supply with groundwater to meet peak needs.

### **WATER FORUM AGREEMENT**

SJWD is a signatory of the Water Forum Agreement (WFA). Its Purveyor Specific Agreement (PSA) stipulates that SJWD would divert and use 82,200 AF in Water Forum wet and average years. This amount of surface water diversion will be reduced to 54,200 AF in driest years. In drier years, SJWD will divert and use a decreasing amount of surface water, from 82,200 AF to 54,200 AF per year, in proportion to the decrease in the March-through-November unimpaired inflow to Folsom Lake from 950,000 AF to 400,000 AF.

In particular, the 54,200 AF in driest years would include 10,000 AF of the PCWA contract amount in Placer County, and 33,000 AF of water rights and CVP entitlements.

### **WATER TRANSFER AGREEMENT WITH CITY OF ROSEVILLE**

SJWD has a 2001 agreement with the City of Roseville (Roseville) in to provide 800 AF per year of surface water from PCWA's MFP contract entitlement for Doctor's Ranch and Foothills Business Park in Placer County. SJWD is currently negotiating another 3,200 AF per year from the same entitlement to Roseville for the West Roseville Specific Plan area. The 4,000 AF of water supply is assumed available only in wet and average years.

### **SJWD'S 2030 WATER DEMAND AND SUPPLY**

Tables A.B1 and A.B3 show the SJWD's 2030 water demand and supply in wet, average, and driest years. The condition for drier years varies depending upon the hydrologic conditions in the American River Basin; however, it is bounded by the conditions in average years and in driest years.

**Table A-B1 SJWD's 2030 Annual Demands and Supplies in Acre-Feet,  
per WFA Limitations on Diversion from the American River (Wet Years, 62% of Occurrence Frequency)**

| Type of Use                     | Area                     | Water Transfer | Demand <sup>[1]</sup> | Surface Water Sources |                    |                                    |        | Groundwater |
|---------------------------------|--------------------------|----------------|-----------------------|-----------------------|--------------------|------------------------------------|--------|-------------|
|                                 |                          |                |                       | Pre-1914              | CVP <sup>[2]</sup> | CVP <sup>[2]</sup><br>(PL 101-514) | MFP    |             |
| M&I                             | SJWD Consortium          |                |                       |                       |                    |                                    |        |             |
|                                 | SJWD (Placer County)     |                | 18,691                | 0                     | 0                  | 0                                  | 18,691 | 0           |
|                                 | SJWD (Sacramento County) |                | 6,531                 | 6,531                 | 0                  | 0                                  | 0      | 0           |
|                                 | FOWD                     |                | 14,222                | 14,222                | 0                  | 0                                  | 0      | 0           |
|                                 | CHWD                     |                | 16,419                | 12,247                | 4,172              | 0                                  | 0      | 0           |
|                                 | OVWC                     |                | 6,747                 | 0                     | 6,356              | 391                                | 0      | 0           |
|                                 | Subtotal                 |                | 62,610                | 33,000                | 10,528             | 391                                | 0      | 0           |
|                                 | Roseville                | 4,000          | 0                     | 0                     | 0                  | 0                                  | 4,000  | 0           |
| Subtotal                        |                          | 4,000          | 62,610                | 33,000                | 10,528             | 391                                | 22,691 | 0           |
| Remaining Amount <sup>[3]</sup> |                          |                |                       | 0                     | 672                | 12,609                             | 2,309  |             |
| Total Water Rights/Entitlements |                          |                |                       | 33,000                | 11,200             | 13,000                             | 25,000 |             |

<sup>[1]</sup> From American River Basin Cooperative Agencies Regional Water Master Plan (2000).

<sup>[2]</sup> Assumed 94% CVP allocation (see Attachment A).

<sup>[3]</sup> Remaining amount due to WFA limitations, assumed CVP deficiency, and estimated demand.

**Table A-B2 SJWD's 2030 Annual Demands and Supplies in Acre-Feet,  
per WFA Limitations on Diversion from the American River (Average Years, 24% Occurrence Frequency)**

| Type of Use                     | Area                     | Water Transfer | Demand <sup>[1]</sup> | Surface Water Sources |                    |                                    |        | Groundwater |
|---------------------------------|--------------------------|----------------|-----------------------|-----------------------|--------------------|------------------------------------|--------|-------------|
|                                 |                          |                |                       | Pre-1914              | CVP <sup>[2]</sup> | CVP <sup>[2]</sup><br>(PL 101-514) | MFP    |             |
| M&I                             | SJWD Consortium          |                |                       |                       |                    |                                    |        |             |
|                                 | SJWD (Placer County)     |                | 18,691                | 0                     | 0                  | 0                                  | 18,691 | 0           |
|                                 | SJWD (Sacramento County) |                | 6,531                 | 6,531                 | 0                  | 0                                  | 0      | 0           |
|                                 | FOWD                     |                | 14,222                | 14,222                | 0                  | 0                                  | 0      | 0           |
|                                 | CHWD                     |                | 16,419                | 12,247                | 4,172              | 0                                  | 0      | 0           |
|                                 | OVWC                     |                | 6,747                 | 0                     | 5,124              | 1,623                              | 0      | 0           |
|                                 | Subtotal                 |                | 62,610                | 33,000                | 9,296              | 1,623                              | 0      | 0           |
|                                 | Roseville                | 4,000          | 0                     | 0                     | 0                  | 0                                  | 4,000  | 0           |
| Subtotal                        |                          | 4,000          | 62,610                | 33,000                | 9,296              | 1,623                              | 22,691 | 0           |
| Remaining Amount <sup>[3]</sup> |                          |                |                       | 0                     | 1,904              | 11,377                             | 2,309  |             |
| Total Water Rights/Entitlements |                          |                |                       | 33,000                | 11,200             | 13,000                             | 25,000 |             |

<sup>[1]</sup> From American River Basin Cooperative Agencies Regional Water Master Plan (2000).

<sup>[2]</sup> Assumed 83% CVP allocation (see Attachment A).

<sup>[3]</sup> Remaining amount due to WFA limitations, assumed CVP deficiency, and estimated demand.

**Table A-B3 SJWD's 2030 Annual Demands and Supplies in Acre-Feet, per WFA Limitations on Diversion from the American River (Driest Years, 2% Occurrence Frequency)**

| Type of Use                     | Area                     | Water Transfer | Demand <sup>[1]</sup> | Surface Water Sources |                    |                                    |        | Groundwater          |
|---------------------------------|--------------------------|----------------|-----------------------|-----------------------|--------------------|------------------------------------|--------|----------------------|
|                                 |                          |                |                       | Pre-1914              | CVP <sup>[2]</sup> | CVP <sup>[2]</sup><br>(PL 101-514) | MFP    |                      |
| M&I                             | SJWD Consortium          |                |                       |                       |                    |                                    |        |                      |
|                                 | SJWD (Placer County)     |                | 18,691                | 8,691                 | 0                  | 0                                  | 10,000 | 0                    |
|                                 | SJWD (Sacramento County) |                | 6,531                 | 6,531                 | 0                  | 0                                  | 0      | 0                    |
|                                 | FOWD                     |                | 14,222                | 11,022                | 0                  | 0                                  | 0      | 3,200                |
|                                 | CHWD                     |                | 16,419                | 6,756                 | 5,969              | 0                                  | 0      | 3,694                |
|                                 | OVWC                     |                | 6,747                 | 0                     | 415                | 4,814                              | 0      | 1,518                |
|                                 | Subtotal                 |                | 62,610                | 33,000                | 6,384              | 4,814                              | 10,000 | 8,412                |
|                                 | Roseville                | 0              | 0                     | 0                     | 0                  | 0                                  | 0      |                      |
| Subtotal                        |                          | 0              | 62,610                | 33,000                | 6,384              | 4,814                              | 10,000 | 8,412 <sup>[4]</sup> |
| Remaining Amount <sup>[3]</sup> |                          |                |                       | 0                     | 4,816              | 8,186                              | 15,000 |                      |
| Total Water Rights/Entitlements |                          |                |                       | 33,000                | 11,200             | 13,000                             | 25,000 |                      |

<sup>[1]</sup> From American River Basin Cooperative Agencies Regional Water Master Plan (2000).

<sup>[2]</sup> Assumed 57% CVP allocation (see Attachment A).

<sup>[3]</sup> Remaining amount due to WFA limitations, assumed CVP deficiency, and estimated demand.

<sup>[4]</sup> Total groundwater pumping is distributed to FOWD, CHWD, and OVWC proportionally to their corresponding demand.

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